

App. No. 10/523,102
Office Action Dated May 10, 2006

IN THE CLAIMS

Amendments To The Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1, 4, 5, 7, 9 and 14 are amended.

Claims 3, 8 and 15 are canceled without prejudice or disclaimer.

Listing of Claims:

1. (Currently Amended) A niobium capacitor comprising:

an anode with niobium as its main component[[]], and

a dielectric layer formed on said anode,

wherein said anode contains manganese in an amount sufficient for stabilizing the dielectric layer, and

wherein said anode has a surface layer with niobium oxide as its main component.

2. (Original) A niobium capacitor according to claim 1, wherein said dielectric layer contains Nb₂O₅.

3. (Canceled)

4. (Currently Amended) A niobium capacitor according to claim 3~~1~~, wherein said niobium oxide is an interstitial compound.

5. (Currently Amended) A niobium capacitor ~~according to claim 1,~~ comprising:

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an anode with niobium as its main component, and

a dielectric layer formed on said anode,

wherein said anode contains manganese in an amount sufficient for stabilizing the dielectric layer, and

wherein said anode has a surface layer with niobium nitride as its main component.

6. (Original) A niobium capacitor according to claim 5, wherein said niobium nitride is an interstitial compound.

7. (Currently Amended) A niobium capacitor ~~according to claim 1,~~ comprising:

an anode with niobium as its main component, and

a dielectric layer formed on said anode,

wherein said anode contains manganese in an amount sufficient for stabilizing the dielectric layer,

wherein said anode is a porous sintered body of a compressed niobium-containing powder, and

wherein said niobium-containing powder has a surface layer containing manganese.

8. (Canceled)

9. (Currently Amended) A niobium capacitor ~~according to claim 1,~~ comprising:

an anode with niobium as its main component, and

a dielectric layer formed on said anode,

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wherein said anode contains manganese in an amount sufficient for stabilizing the dielectric layer, and

wherein a junction region between said anode and said dielectric layer contains NbO and Mn.

10. (Previously Presented) A niobium capacitor according to claim 9, wherein said junction region contains MnO_2 .

11. (Previously Presented) A niobium capacitor according to claim 9, wherein said junction region contains 0.1 to 10wt% of manganese.

12. (Previously Presented) A niobium capacitor according to claim 9, wherein said dielectric layer is formed by anodic oxidation on said anode, and said junction region contains 0.1 to 3wt% of manganese.

13. (Original) A niobium capacitor according to claim 1, further comprising a solid electrolyte layer formed on said dielectric layer, said solid electrolyte layer consisting of MnO_2 .

14. (Currently Amended) A method for manufacturing a niobium capacitor, comprising the steps of:

forming an anode containing niobium; and

forming a dielectric layer on said anode;

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wherein the step of forming said anode is performed to cause said anode to additionally contain manganese in an amount sufficient for stabilizing said dielectric layer, and

wherein the step of forming said anode involves forming a compressed molded product made of a niobium-containing powder containing in a surface layer thereof 0.1 to 10wt% of manganese, and then sintering said compressed molded product.

15. (Canceled)

16. (Original) A method for manufacturing a niobium capacitor according to claim 14, wherein the step of forming said anode involves forming a sintered body made of niobium-containing powder, and then doping said sintered body with manganese.

17. (Previously Presented) A method for manufacturing a niobium capacitor, comprising the steps of:

forming an anode containing niobium, and

forming a dielectric layer containing niobium oxide as its main component and 0.1 to 10wt% of manganese;

wherein in the step of forming said dielectric layer, said anode is oxidized in a vapor-phase atmosphere containing manganese.

18-19. (Canceled)

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20. (Original) A method for manufacturing a niobium capacitor according to claim 17, wherein said anode contains any one of a niobium, niobium oxide and niobium nitride, as its main component.

21. (Previously Presented) A niobium capacitor comprising:

an anode with niobium as its main component; and

a dielectric layer formed on said anode,

wherein the junction region between said anode and said dielectric layer contains manganese;

wherein said anode has a surface layer with niobium nitride as its main component;

and

wherein said niobium nitride is an interstitial compound.